

REMARKS

Claims 1-19 are pending in the instant application. The Specification has been objected to by the Examiner. Claims 18 and 19 have been rejected under 35 U.S.C. 112, first paragraph. Claims 11-17 have been rejected under 35 U.S.C. 101. Claims 1-4, 6, 7, 9-14, 16, and 17 have been rejected under 35 U.S.C. 102(a). Claims 5, 8, 15, 18, and 19 have been rejected under 35 U.S.C. 103(a). Claim 11 has been amended. Claims 18 and 19 have been cancelled, leaving claims 1-17 for consideration upon entry of this Amendment. The Applicants submit that claims 1-17 are in condition for allowance and request reconsideration and withdrawal of the outstanding rejections. No new matter has been entered.

Objections to the Specification

The Specification has been objected to as allegedly failing to provide proper antecedent basis for the claimed subject matter. In particular, the Examiner states that claims 18 and 19 recite subject matter that is not taught by the Specification. The Applicants have cancelled claims 18 and 19 rendering the outstanding rejections moot. Reconsideration and withdrawal of the objection is respectfully requested.

Claim Rejections Under 35 USC 112, first paragraph

Claims 18 and 19 are rejected under 35 U.S.C. 112, first paragraph, as allegedly failing to comply with the written description requirement. The Examiner states that claims 18 and 19 contain subject matter which was not described in the Specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The Applicants have cancelled claims 18 and 19 rendering moot the outstanding rejections. Reconsideration and withdrawal of the rejections is respectfully requested.

Claim Rejections Under 35 USC §101

Claims 11-17 have been rejected under 35 U.S.C. 101 as allegedly being directed to non-statutory subject matter. In particular, the Examiner states that claims 11-17 recite non-functional descriptive material. In addition, claims 11-17 are rejected as being directed to the non-statutory subject area of electro-magnetic signals.

The Applicants have amended the preamble of claim 11 in accordance with the

Examiner's suggestion. The Applicants respectfully submit that the amendment to claim 11 is proper after Final rejection because the amendment does not include new matter has been presented solely for placing the Application in condition for Appeal. Claim 11, as amended, recites a "computer program product embodied on a computer-readable *storage* medium for providing dynamic deployment of grid services over a computer network, the computer program product including instructions executable by a computer processor."

The Applicants respectfully traverse the rejections of claim 11 under 35 U.S.C. 101. The Examiner states that claim 11 recites non-functional descriptive material. The Applicants respectfully disagree.

Claims directed to program code stored in a computer-readable storage medium have been held to be statutory subject matter (*In re Beauregard*, 53 F.3d 1583 (Fed. Cir. 1995)). Further, MPEP 2106 states a "claim limited to a machine or manufacture, which has a practical application in the technological arts, is statutory. In most cases, a claim to a specific machine or manufacture will have a practical application in the technological arts" (MPEP 2106(IV)). See also, *Alappat*, 33 F.3d at 1544, 31 USPQ2d at 1557, which states "the claimed invention as a whole is directed to a combination of interrelated elements which combine to form a machine for converting discrete waveform data samples into anti-aliased pixel illumination intensity data to be displayed on a display means. This is not a disembodied mathematical concept which may be characterized as an 'abstract' idea,' but rather a specific machine to product a useful, concrete, and tangible result").

Claim 11, as amended, recites a "computer program product embodied on a computer-readable storage medium, the computer program product including instructions executable by a computer processor for providing dynamic deployment of grid services over a computer network, the computer program product including instructions executable by a computer processor for performing: installing grid artifacts in a directory located on a target hosting environment in response to an invocation of an implementation of a deployment grid service by a client system, the target hosting environment remotely located from the client system over the computer network, said grid artifacts including: a Web service deployment descriptor; a service implementation; and a WSDL describing said service implementation; and providing addressability of said grid service to said client system over the computer network by updating

said Web service deployment descriptor with service data elements and typemappings associated with said client system; wherein said artifacts are resident in a GAR file provided by a grid services deployment system.” Thus, the claimed invention is directed to a ***combination of interrelated elements that combine to form a machine for dynamically deploying grid services over a computer network***. These interrelated elements produce a useful, concrete and tangible result. Accordingly, the Applicants submit that claim 11 recites statutory subject matter in accordance with 35 U.S.C. 101. Claims 12-17 depend from what should be an allowable claim 11.

In addition, the Examiner rejects claims 11-17 as being allegedly directed the non-statutory subject area of electro-magnetic signals. The Applicants respectfully disagree. Claims 11-17 are not directed to electro-magnetic signals but rather a ***computer program product including instructions executable by a computer processor***. Thus, the Applicants submit that claims 11-17 fully comply with the requirements set forth in 35 U.S.C. 101.

For at least these reasons, the Applicants submit that claims 11-17 are in condition for allowance and respectfully request reconsideration and withdrawal of the outstanding rejections.

Claim Rejections Under 35 USC §102

Claims 1-4, 6, 7, 9-14, and 16-17 have been rejected under 35 U.S.C. 102(a) as being allegedly anticipated by Java (Article entitled “Java Programmer’s Guide”).

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Moreover, “[t]he identical invention must be shown in as complete detail as is contained in the * * claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Applicants traverse the outstanding rejections because “Java” does not teach or suggest each and every element recited in the Applicants claims.

Java does not teach or suggest ***providing dynamic deployment of grid services over a computer network***. Nor does Java teach ***installing grid artifacts in a directory located on a target hosting environment*** in response to an invocation of an implementation of a deployment grid service by a client system, the target hosting environment ***remotely located from the client system over the computer network***, said grid artifacts including: a Web service deployment

descriptor; a service implementation; and a WSDL describing said service implementation; and providing addressability of said grid service to the client system *over the computer network* by updating said Web service deployment descriptor with service data elements and typemappings associated with said client system.

The Java Programmer's Guide cited by the Examiner describes a method for building and managing grid services in the Globus toolkit. The reference teaches *co-located* (target/host/client), *non-dynamic*, and *non-network based grid services* (pages 3-5). By contrast, the features recited in claim 1 are directed to an automated, remote and dynamic deployment of grid services conducted over a network. As described on pages 3-5 of Java, the grid services are entirely limited to *co-located client/server elements*. There is simply no teaching anywhere in the Java reference of deployment of grid services over a computer network as recited in claim 11.

Accordingly, Applicants' claim 1 is not anticipated by the Java reference and is believed to be in condition for allowance. Claims 9 and 11 recite substantially similar features and are believed to be patentable for at least the reasons presented above with respect to claim 1.

Claim 2-4, 6, 12-14, and 16 recite specific implementation details relating to the deployment (i.e., once the GAR files have been delivered to the deployment service). In particular, the service implementation recited in claim 2, e.g., relates back to the grid service deployment system in claim 1, from which claim 2 depends. The Java reference fails to disclose this implementation *as part of an operating grid service deployment system*. For at least these reasons, the Applicants submit that claims 2-4, 6, 12-14, and 16 are not anticipated by the Java reference. In addition, claims 2-4, 6, 12-14, and 16 are in condition for allowance due to their dependencies upon what should be allowable base claims.

Claims 7 and 17 are also believed to be patentable over the Java reference. Claims 7 and 17 recite multiple simultaneous deployments of grid services. These features are neither taught, nor suggested by the Java reference. Rather, Java teaches it is possible to deploy N services, one at a time where the final image has multiple services deployed (page 5). However, Java does not teach multiple *simultaneous* deployments as recited in claims 7 and 17. For at least these reasons, the Applicants submit that claims 7 and 17 are in condition for allowance. New claims

18 and 19 depend from what should be an allowable claim 17 and are, for at least this reason, believed to be in condition for allowance.

Claim 10 is further believed to be patentable over the Java reference. Claim 10 recites a user interface for interacting with the network-enabled client system. In the Final Office Action, the Examiner indicates that this feature may be found on page 1 of the Java reference. In fact, there is no explicit teaching of a user interface anywhere in this reference. Rather, Java makes a *general reference* to an application programming interface (API) for use by advanced developers. A user interface and application programming interface are clearly not synonymous in the relevant art. Thus, the Applicants submit that claim 10 is patentable over Java and is in condition for allowance.

Claim Rejections Under 35 USC § 103

Claims 5, 8, and 15 are rejected under 35 U.S.C. 103(a) as being allegedly unpatentable over Java (Article entitled “Java Programmer’s Guide”) as applied to claims 1-4, 6, 7, 9-14, and 16-17 above and in view of Wilder-Mcbride (Book entitled “Java Development on PDAs: Building Applications for PocketPC and Palm Devices).

The Applicants respectfully traverse the rejections of claims 5, 8, and 15. Claims 5 and 15 depend from what should be considered allowable base claims as described above. For at least this reason, the Applicants submit that claims 5 and 15 are in condition for allowance. In addition, as indicated above with respect to claim 1, the Java reference teaches grid service implementation in a co-located environment. Neither reference teaches an grid-undeployment service to accomplish an automated and dynamic un-deploy service over a network. By the same reasoning, the Applicants submit that claim 8 is not rendered obvious in view of the references. Claim 8, likewise, recites an un-deployment service over a computer network. For at least these reasons, the Applicants submit that claims 5, 8, and 15 are in condition for allowance and respectfully request reconsideration and withdrawal of the outstanding rejections.

In addition, the Examiner has rejected claims 18 and 19 under 35 U.S.C. 103(a) as being allegedly unpatentable over Java as applied to claims 1-4, 6, 7, 9-14, 16 and 17 and in view of Mousseau et al. (U.S. Patent Publication No. 2022/0078495, hereinafter “Mousseau”). The

Applicants have cancelled claims 18 and 19 rendering the outstanding rejections moot.

CONCLUSION

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance is requested. It is submitted that the foregoing amendments and remarks should render the case in condition for allowance.

Accordingly, as the cited references neither anticipate nor render obvious that which the applicant deems to be the invention, it is respectfully requested that claims 1-19 be passed to issue.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 09-0463.

Respectfully submitted,

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